

Amendment to the claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently amended) A process for the fractionation improved recovery of double stranded linear nucleic acids of small fragment length having less than about 300 base pairs, by nucleic acid fragment length, of linear nucleic acids contained in a liquid sample consisting essentially of linear nucleic acids, comprising diluting said liquid sample, contacting the diluted sample with an ultrafiltration membrane to fractionate by fragment length, and subjecting said diluted sample to a pressure differential to filter said diluted sample to dryness, and recovering said small fragment length double stranded linear nucleic acids.
2. (Original) The process of claim 1, wherein said liquid sample is diluted to 1/3 to 1/5 its initial concentration.
3. (Original) The process of claim 1, wherein said dilution is carried out with a member selected from the group consisting of water, EDTA, trishydrochloride, a mixture of trishydrochloride and sodium EDTA, and triethylenediaminetriacetic acid.
4. (Cancelled)
5. (Original) The process of claim 1, wherein said pressure differential is a constant pressure differential.
6. (Currently amended) A process for the fractionation improved recovery of double stranded linear nucleic acids of small fragment length having less than about 300 base pairs, by nucleic acid fragment length, of linear nucleic acids, contained in a liquid

sample consisting essentially of linear nucleic acids, comprising providing an ultrafiltration membrane having an upstream and a downstream side, diluting said sample, and contacting said membrane with said liquid sample to fractionate said liquid sample by fragment length, and subjecting said liquid sample to a pressure differential having a pressure less than 25 inches of Hg to filter said diluted sample to dryness, and recovering said small fragment length double stranded linear nucleic acids.

7. (Original) The process of claim 6, wherein said pressure differential is about 10 inches Hg.
8. (Original) The process of claim 6, wherein said pressure differential is a constant pressure differential.
9. (Currently amended) A process for the fractionation improved recovery of double stranded linear nucleic acids of small fragment length having less than about 300 base pairs, by nucleic acid fragment length, of contaminants in a liquid sample, comprising increasing the concentration of said contaminants by adding to said sample a member selected from the group consisting of nucleic acid condensing agents and monovalent cations, and contacting the sample with an ultrafiltration membrane to fractionate by fragment length, and subjecting said sample to a pressure differential, and recovering said small fragment length double stranded linear nucleic acids.
10. (Original) The process of claim 9, wherein said nucleic acid condensing agents are selected from the group consisting of manganese, magnesium, hexaminecobalt chloride, spermine, spermidine, and mixtures thereof.

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11. (Original) The process of claim 9, wherein said monovalent cations are selected from the group consisting of sodium, potassium and ammonium.

12. (Original) The process of claim 9, wherein said pressure differential is a constant pressure differential.

13 (Currently amended) A process for the fractionation improved recovery of double stranded linear nucleic acids of small fragment length having less than about 300 base pairs, by nucleic acid fragment length, of linear nucleic acids contained in a liquid sample consisting essentially of linear nucleic acids, comprising diluting said liquid sample, contacting the diluted sample with an ultrafiltration membrane to fractionate by fragment length, and subjecting said diluted sample to a first pressure, followed by subjecting said diluted sample to a second pressure different from said first pressure, and recovering said small fragment double stranded linear nucleic acids.

14 (Cancelled)

15 (Cancelled)

16 (Cancelled)

17 (Cancelled)

18 (Cancelled)

19 (Cancelled)